AMSAT News Service Weekly Bulletins
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AMSAT NEWS SERVICE
ANS-210

ANS is a free, weekly, news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

Please send any amateur satellite news or reports to:

ans-editor@amsat.org

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SB SAT @ AMSAT $ANS-210.01
AMSAT News Service Bulletin 210.01

>From AMSAT HQ SILVER SPRING, MD.
July 29, 2007
To All RADIO AMATEURS
BID: $ANS-210.01

A press release from the European Space Agency reports that NASA plans to resume testing and integration work on the ESA Columbus Space Laboratory to prepare it for connection with the International Space Station.

Columbus was flown to Florida back in May, 2006, to get in line for its launch to the station. Earlier this year, it was removed from temporary storage, and engineers equipped it with experiment racks and orbital hardware. After a break over the summer, workers will continue preparing it for launch. If all goes well, it will blast into space atop the space shuttle Atlantis as early as December 6th, 2007 on the STS-122 Shuttle Flight.

Also aboard Columbus will be amateur radio equipment to support a linear transponder with an L-band uplink and S-band downlink.

ESA information on the Columbus Space Laboratory can be found at:
http://www.esa.int/esaCP/SEMJY2HYX3F_index_0.html.

[ANS thanks ESA and Universe Today for the above information]

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SB SAT @ AMSAT $ANS-210.02
AMSAT-UK Colloquim News

AMSAT News Service Bulletin 210.02

>From AMSAT HQ SILVER SPRING, MD.
July 29, 2007
To All RADIO AMATEURS
BID: $ANS-210.02

Satellite News From 2007 AMSAT-UK Space Colloquium

Good news about interesting amateur satellite projects has been released upon the conclusion of the 2007 AMSAT-UK Space Colloquium.

Amateur Radio satellite Delfi-C3 video available
http://www.southgatearc.org/news/july2007/delfi_c3_video.htm

AMSAT-OZ Satellite on a PCB - AMSAT-UK Colloquium Paper and PowerPoints at http://wiki.amsat.dk/

P3E Update
http://www.southgatearc.org/news/july2007/p3e_update.htm

The UK to get it's first Cubesat?
http://www.southgatearc.org/news/july2007/uk_cubesat.htm

[ANS thanks AMSAT-UK and Trevor, M5AKA for the above information]

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SB SAT @ AMSAT $ANS-210.03
AO-51 Features SSB Uplink to FM Downlink Experiment

AMSAT News Service Bulletin 210.03
>From AMSAT HQ SILVER SPRING, MD.
July 29, 2007
To All RADIO AMATEURS
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On July 24 AO-51 controllers enabled the satellite's SQRX receiver to allow for operation utilizing a 145.880 MHz SSB uplink with an FM downlink on 435.300 MHz. This experiment also caused changes in the way that telemetry is handled. Gould, WA4SXM, AO-51 Command Station described the configuration, "I turned off Transmitter A last night when I switched modes as the schedule did not include the telemetry downlink. If I use the SQRX receiver, then I need to decrease the transmitter power for the batteries to make it through eclipse." In the meantime AO-51 was collecting telemetry, but not transmitting telemetry.

Alan, WA4SCA was active on the new mode and wrote, "It is very obvious who has computer control of the radio. Intelligibility is as with any of the passband birds, except on AO-51 you fall completely out of the passband quickly. In this mode the RX is relatively sensitive, but I did need a beam to get a good uplink, though my output was only 1-2 watts."

In the period between July 27-July 31, controllers returned AO-51 into its V/U FM Repeater mode with the uplink on 145.920 MHz and downlink on 435.300 MHz. 9k6 telemetry transmission was re-enabled on 435.150 MHz.

[ANS thanks Gould, WA4SXM and Alan, WA4SCA for the above

information]

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SB SAT @ AMSAT $ANS-210.04
AO-7 Log Page

AMSAT News Service Bulletin 210.04
>From AMSAT HQ SILVER SPRING, MD.
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To All RADIO AMATEURS
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John, LA2QAA, AO-7 Resource Web Page Administrator, reminds users that the AO-7 log page (http://www.planetemily.com/ao7/ao7log.php) remains operational. John asks, "Please remember this page is designed to be an "activity" log. It is not designed to be a log to see who can collect the most points. Please refrain from entering multiple QSO's on different lines for the same orbit because this will then give false overall results." John is available to answer questions via e-mail at his <callsign>@amsat.org address.

[ANS thanks John, LA2QAA for the above information]

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SB SAT @ AMSAT $ANS-210.05
ARISS Status - 23 July 2007

AMSAT News Service Bulletin 210.05
>From AMSAT HQ SILVER SPRING, MD.
July 29, 2007
To All RADIO AMATEURS
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Amateur Radio on the International Space Station (ARISS) Status Report
July 23, 2007

1. Successful ARISS Contact with Hospitalized Children

On Tuesday, July 17, long term hospitalized children at the Arnold Palmer Hospital for Children in Orlando, Florida, spoke with astronaut Clay Anderson, KD5PLA, aboard the ISS, via the telebridge station W6SRJ in California. Anderson answered the children's 20 questions which had been prepared for the Amateur Radio on the International Space Station (ARISS) event, and with extra time available, he answered an additional 13 posed to him by the 10 patients. An ARISS team member gave a presentation to the children covering amateur radio and the ARISS program. The audio was fed into the EchoLink AMSAT (101 377) and JK1ZRW (277 208) servers, and into the IRLP Discovery Reflector 9010. Twenty connections were made to EchoLink, of which 7 were repeaters, from 8 countries, including the Czech Republic and Croatia. Central Florida News, Channel 13, ran a story with video on the event. See: http://www.cfnews13.com/Health/YourHealth/2007/7/18/sick_kids_get_special_talk_with_astronaut.html

2. Upcoming School Contacts

The Challenger Learning Center of Lucas County, in Oregon, Ohio has been scheduled for an Amateur Radio on the International Space Station (ARISS) contact on Wednesday, July 25 at 11:38 UTC. The center has a

science lab that is used for the summer camp programs, and schools from northwest Ohio and southeast Michigan participate in the programs which reach approximately 3000 students each year. The audio from this event will be fed into the EchoLink AMSAT (101 377) and JK1ZRW (277 208) servers, as well as being fed into the IRLP Discovery Reflector 9010.

An Amateur Radio on the International Space Station (ARISS) contact has been planned for the 21st World Scout Jamboree in Chelmsford, England. A Special Event Station, GB100J, will operate at the Jamboree from July 27 to August 8, 2007. Approximately 40,000 scouts from 200 countries are expected to attend this event. The audio will be broadcast on the Jamboree FM Radio Station and will be webcast on the radio station's website. It will also be fed into the EchoLink AMSAT (101 377) and JK1ZRW (277 208) servers, but it is unlikely that it will be fed into the IRLP Discovery Reflector 9010. The contact will take place on Saturday, August 4 at 21:10 UTC.

3. ARISS International Team Meeting Held

An Amateur Radio on the International Space Station (ARISS) International Team teleconference was held on Tuesday, July 17. Agenda items covered included the ARISS Kenwood and Ericsson radio systems and SuitSat-2 status. Minutes have been posted to the ARISS website. See: http://www.rac.ca/ariss/arisstel2007-07-17.htm

4. Crew Debrief Scheduled

A crew debriefing session with Expedition 14/15 member Sunita Williams has been tentatively scheduled for Tuesday, July 24. Williams completed 33 Amateur Radio on the International Space Station (ARISS) contacts with school children around the world while aboard the ISS.

[ANS thanks Carol, KB3LKI, for the above information]

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SB SAT @ AMSAT $ANS-210.06
New Thinking on Time Travel

AMSAT News Service Bulletin 210.06
>From AMSAT HQ SILVER SPRING, MD.
July 29, 2007
To All RADIO AMATEURS
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Astrophysicists pondering the subject of time travel have postulated not only whether time travel is theoretically possible but whether it is technically achieveable. The popular concepts using black holes, wormholes, and cosmic strings are not practically possible because they basically require the ability to harness energy equivalent to an exploding star and an inconceivable amount of mass.

A more down-to-earth concept has been proposed. Physicist Ronald Mallett is known for his expertise in general relativity, gravitation, black holes, relativistic astrophysics, and quantum cosmology. He has been working with Einstein's equations for years in an attempt to design a sort of time machine. Professor Mallett has devised an alternative to these time travel methods based on Einstein's famous relativity equation: E=mc2.

"Einstein showed that mass and energy are the same thing," said Mallett, who published his first research on time travel back in 2000, which appeared in the journal Physics Letters. "The time machine we've designed

uses light in the form of circulating lasers to warp or loop time instead of using massive objects."

In attempting to create a "time loop", Mallett is tinkering with a device to test his time-warping theory. Using mirrors, Mallett hopes to create a circulating light beam that can warp surrounding space, which is part of his work called The Space-time Twisting by Light (STL) project.

According to Einstein, whenever you do something to space, you also affect time. Twisting space causes time to be twisted, meaning you could theoretically walk through time as you walk through space.

Lest amateur radio operators get their hopes up for one more QSO via AO-40 or a chance to snag the missed DXepedition, Professor Mallet has a 'futhermore': "The Grandfather Paradox [where you go back in time and kill your grandfather] is not an issue," said Mallett. "In a sense, time travel means that you're traveling both in time and into other universes. If you go back into the past, you'll go into another universe. As soon as you arrive at the past, you're making a choice and there'll be a split. Our universe will not be affected by what you do in your visit to the past."

[ANS thanks the Daily Galaxy for the above information]

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In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.

73,
This week's ANS Editor,
Dee Interdonato, NB2F